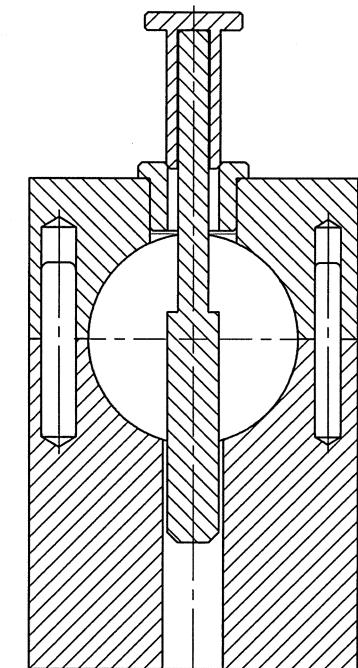
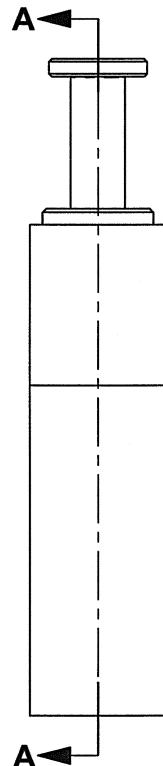
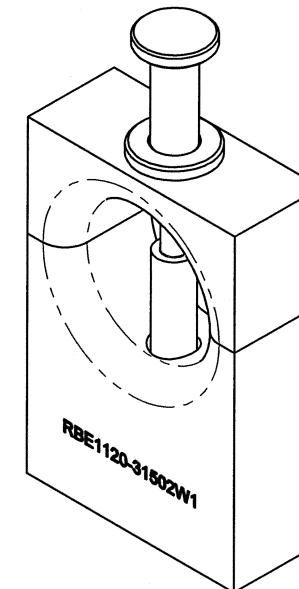
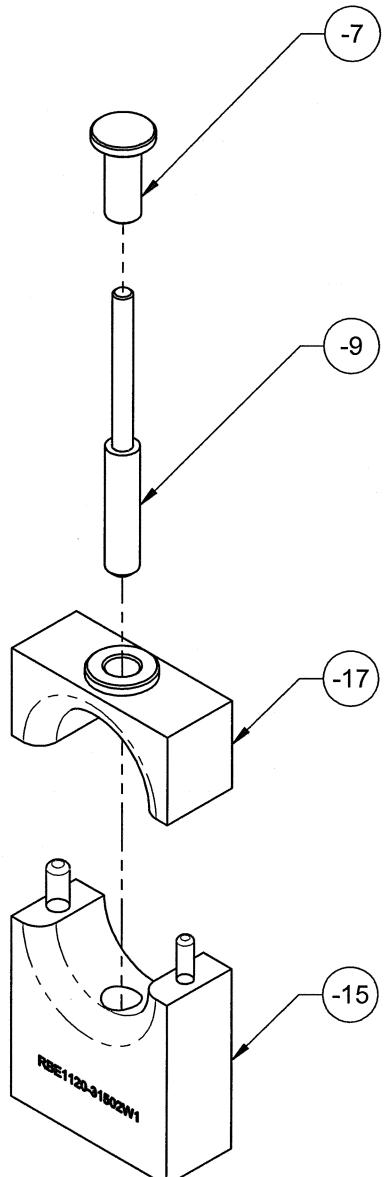


ITEM #	QTY	PART #	PART TITLE
-7	1	RBE1120-31502W1-7	BUSHING #2
-9	1	RBE1120-31502W1-9	PIN
-15	1	RBE1120-31502W1-15	BASE ASSEMBLY
-17	1	RBE1120-31502W1-17	TOP ASSEMBLY

D

D

**SECTION A-A****RBE1120-31502W1 PUSH IN / PRESS OUT DEVICE**

8

**NOTES:**

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A
- 7) ASSEMBLE AS SHOWN
- 8) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG

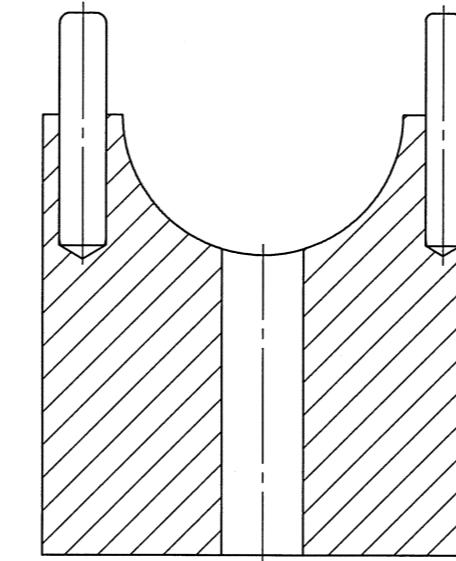
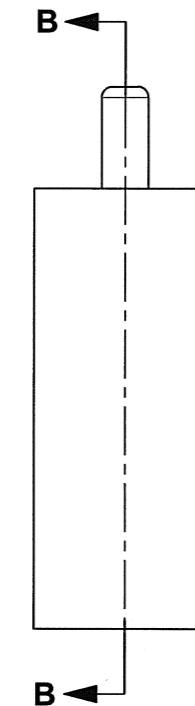
B	SEE PREVIOUS REVISION FOR MORE INFORMATION UPDATED DRAWING TEMPLATE ADDED SUBASSEMBLY ITEMS -15 AND -17 ITEM 18 MS16555-344 WAS ITEM -11 MCMASTER-CARR#98381A512 ITEM 19 MS16555-349 WAS ITEM -13 MCMASTER-CARR#98381A544 ITEM -15 CONTAINS ITEMS -1, 18, AND 19 ITEM -17 CONTAINS ITEMS -3 AND -5  -1 DIM WAS $\phi$ .2496-.2487 IS $\phi$ .2500-0.2492. DIM WAS $\phi$ .1874-.1868 IS $\phi$ .1875-0.1867. DIM WAS $1.800 \pm .001$ IS $1.934 \pm .001$ . DIM WAS $\phi$ .1345 IS $\phi$ .1510-1.505. DIM WAS $3X .237$ IS $2.365$ . REMOVED .900, $3X .490$ , AND $1.180$ DIMS  -3 DIM WAS $1.800 \pm .001$ IS $1.934$ . DIM WAS $\phi$ .1345 IS $\phi$ .1510-1.505. DIM WAS $\phi$ .2540-.2519 IS $\phi$ .258-0.263. DIM WAS $\phi$ .6265-6255 IS $\phi$ .6257-0.625. DIM WAS $\phi$ .1907-0.1890 IS $\phi$ .201-0.196. REMOVED .900, $3X .490$ , AND $1.180$ DIMS  -5 DIM WAS .455 IS 0.375. DIM WAS $\phi$ .6270-6267 IS $\phi$ .6266-0.6262. DIM WAS $\phi$ .3750+.0005/-0.001 IS $\phi$ .376-0.375. REMOVED (.570) AND .115 DIMS. ADDED 0.49 DIM AND 48-52 RC HEAT TREAT  -7 REMOVED ORDINATE DIMENSIONS. ADDED R0.008 MAX, 0.99, AND 1.12 DIMS  -9 REMOVED 1.65 DIM. ADDED 2.02 DIM			KPT	19-870
	REV.	DESCRIPTION	ECN #		
DRAWN	KPT	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA			
CHECKED	MW	TOOL PART #			
MFG. APPR.	FK	REV. B			
APPROVED		RBE1120-31502W1			
TITLE		SHEET 1 OF 8			
DATE 2019-09-09		SCALE NTS			

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ITEM #	QTY	PART #	PART TITLE
-1	1	RBE1120-31502W1-1	BASE
18	1	MS16555-344	PHOSPHATE COATED STEEL DOWEL PIN 3/16" DIA. X 1-1/4" LG.
19	1	MS16555-349	PHOSPHATE COATED STEEL DOWEL PIN 1/4" DIA. X 1-1/4" LG.

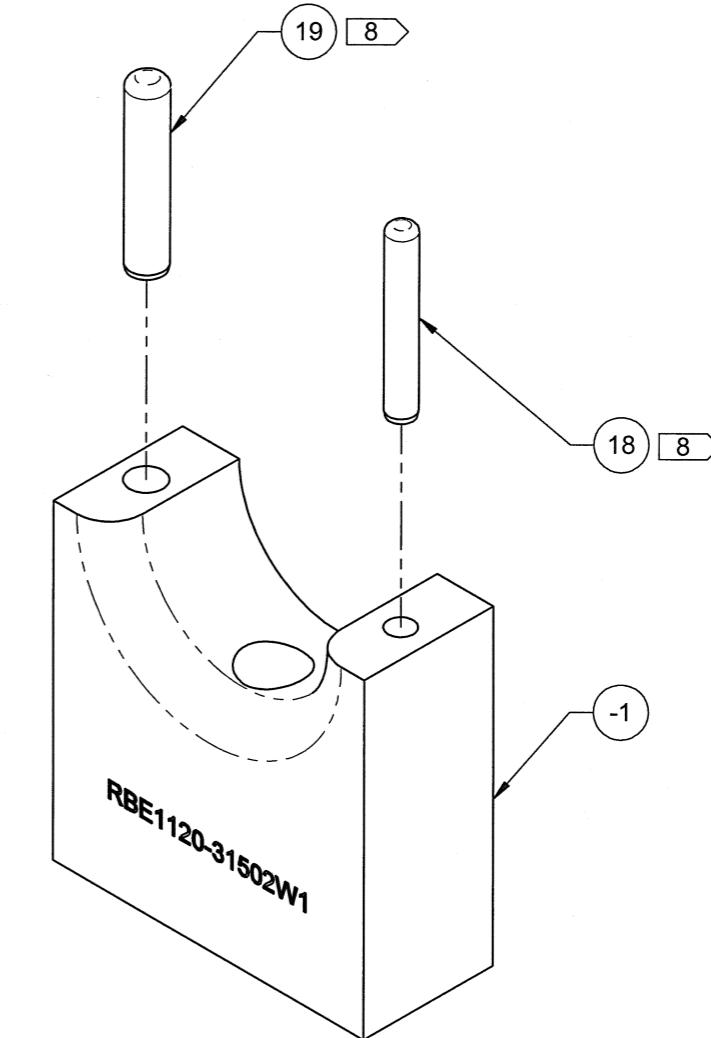
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**SECTION B-B****RBE1120-31502W1-15 BASE ASSEMBLY**

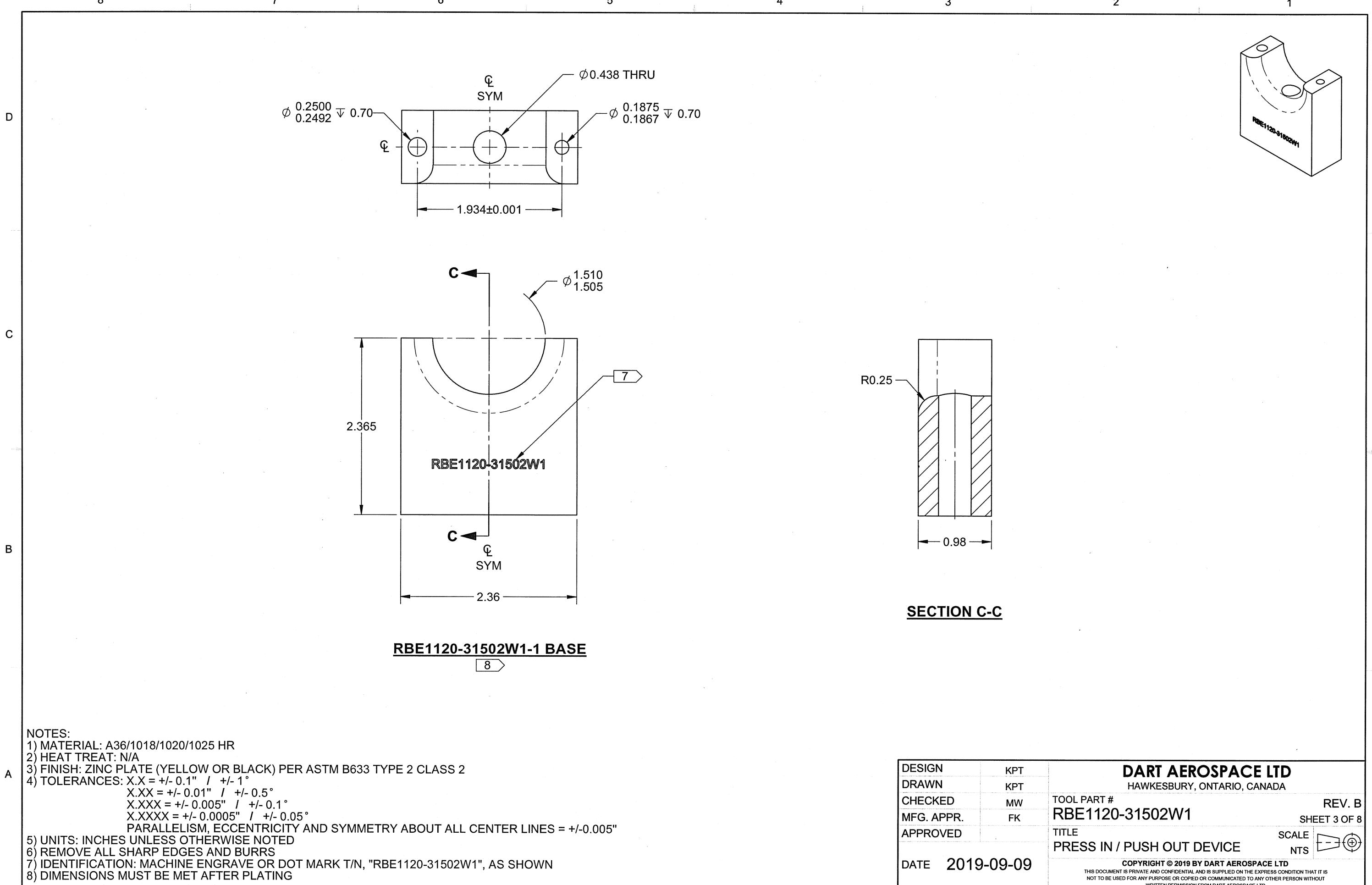
## NOTES:

- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A
- 7) ASSEMBLE AS SHOWN
- 8) APPLY RETAINING COMPOUND LOCTITE 620 OR EQUIVALENT ON MATING SURFACES  
THEN PRESS FIT ITEMS 18 AND 19 WITH ITEM -1, AND REMOVE EXCESS



DESIGN DRAWN	KPT KPT	<b>DART AEROSPACE LTD</b>	
CHECKED	MW	HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.	FK	TOOL PART #	REV. B
APPROVED		RBE1120-31502W1	SHEET 2 OF 8
DATE 2019-09-09		TITLE	SCALE
		PRESS IN / PUSH OUT DEVICE	NTS

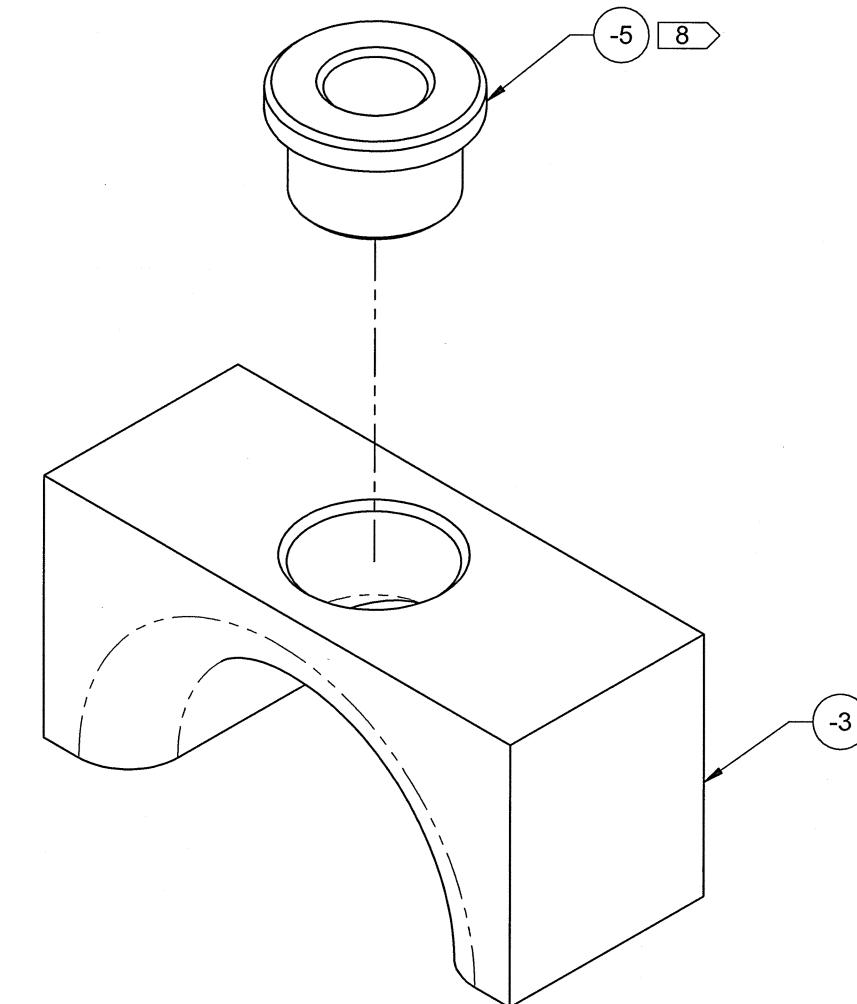
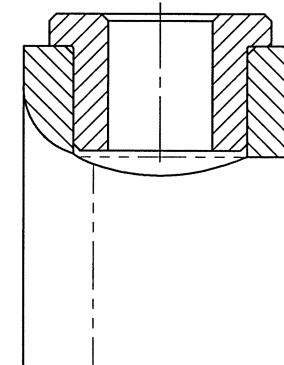
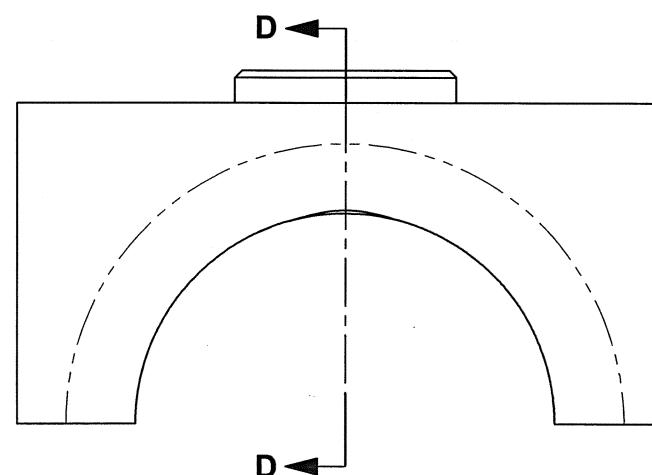
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DESIGN DRAWN	KPT KPT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	MW	TOOL PART #
MFG. APPR.	FK	<b>RBE1120-31502W1</b>
APPROVED		REV. B SHEET 3 OF 8
DATE 2019-09-09		TITLE PRESS IN / PUSH OUT DEVICE SCALE NTS

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ITEM #	QTY	PART #	PART TITLE
-3	1	RBE1120-31502W1-3	TOP
-5	1	RBE1120-31502W1-5	BUSHING #1



SECTION D-D

RBE1120-31502W1-17 TOP ASSEMBLY

NOTES:

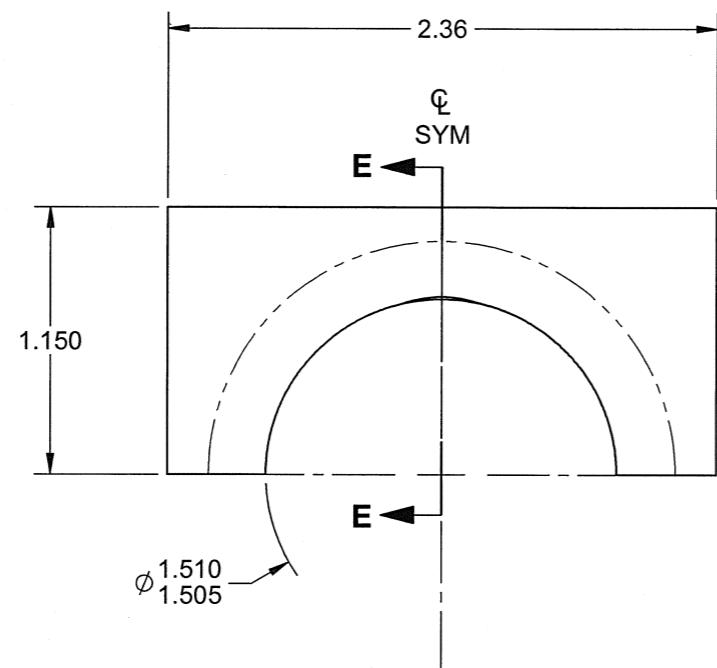
- 1) MATERIAL: N/A
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
 X.XX = +/- 0.01" / +/- 0.5°  
 X.XXX = +/- 0.005" / +/- 0.1°  
 X.XXXX = +/- 0.0005" / +/- 0.05°  
 PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A
- 7) ASSEMBLE AS SHOWN
- 8) APPLY RETAINING COMPOUND LOCTITE 620 OR EQUIVALENT ON MATING SURFACES  
 THEN PRESS FIT ITEM -5 WITH ITEM -3, AND REMOVE EXCESS

DESIGN DRAWN	KPT KPT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	MW	TOOL PART #
MFG. APPR.	FK	RBE1120-31502W1
APPROVED		REV. B SHEET 4 OF 8
DATE 2019-09-09		TITLE PRESS IN / PUSH OUT DEVICE
SCALE NTS		

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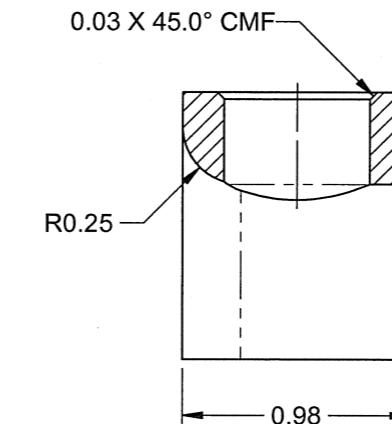
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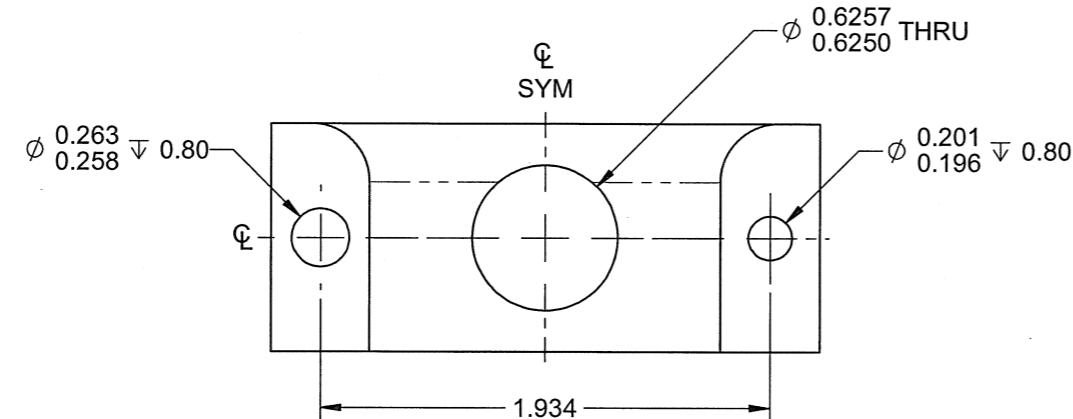
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**SECTION E-E**

B

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**RBE1120-31502W1-3 TOP**

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**NOTES:**

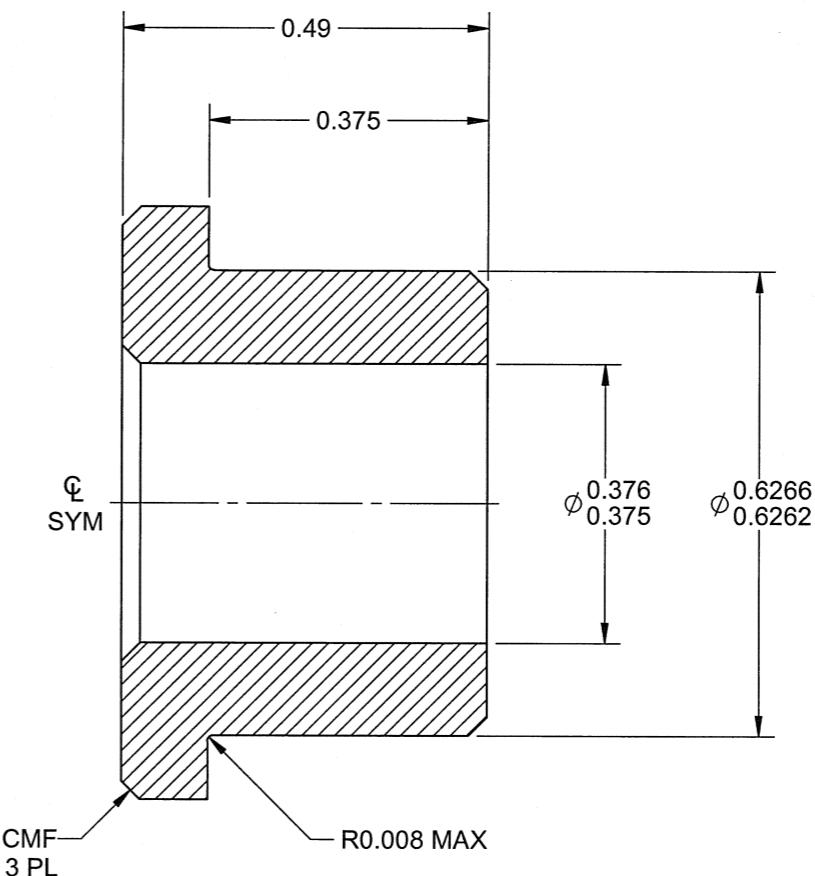
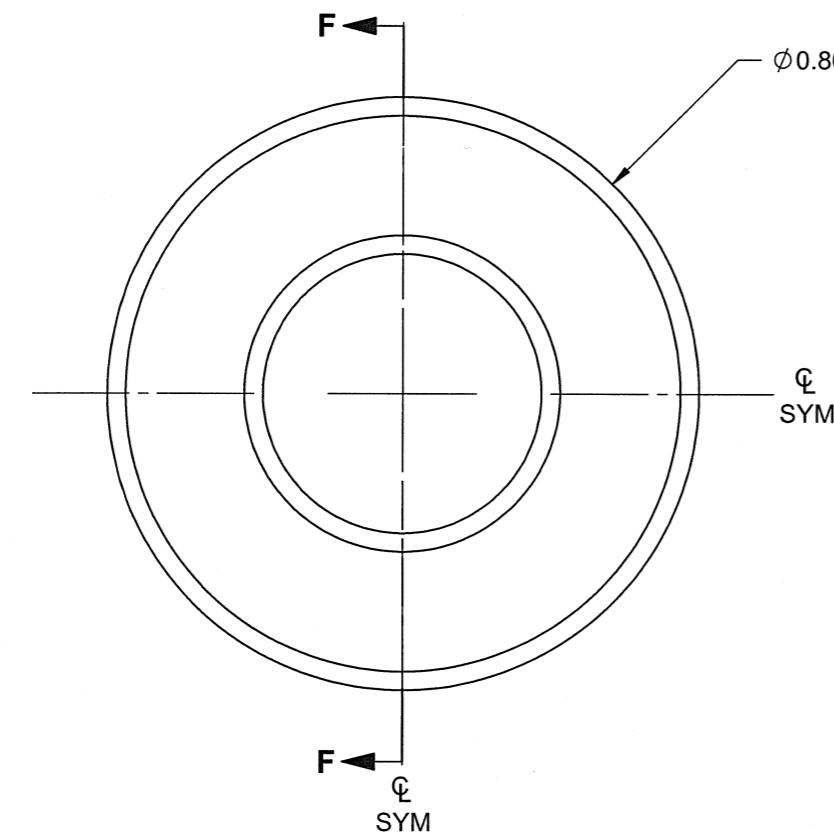
- 1) MATERIAL: A36/1018/1020/1025 HR
- 2) HEAT TREAT: N/A
- 3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) REMOVE ALL SHARP EDGES AND BURRS
- 7) IDENTIFICATION: N/A
- 8) DIMENSIONS MUST BE MET AFTER PLATING

DESIGN	KPT	<b>DART AEROSPACE LTD</b>	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MW	TOOL PART #	REV. B
MFG. APPR.	FK	<b>RBE1120-31502W1</b>	SHEET 5 OF 8
APPROVED		TITLE	
		PRESS IN / PUSH OUT DEVICE	
DATE 2019-09-09		SCALE NTS	

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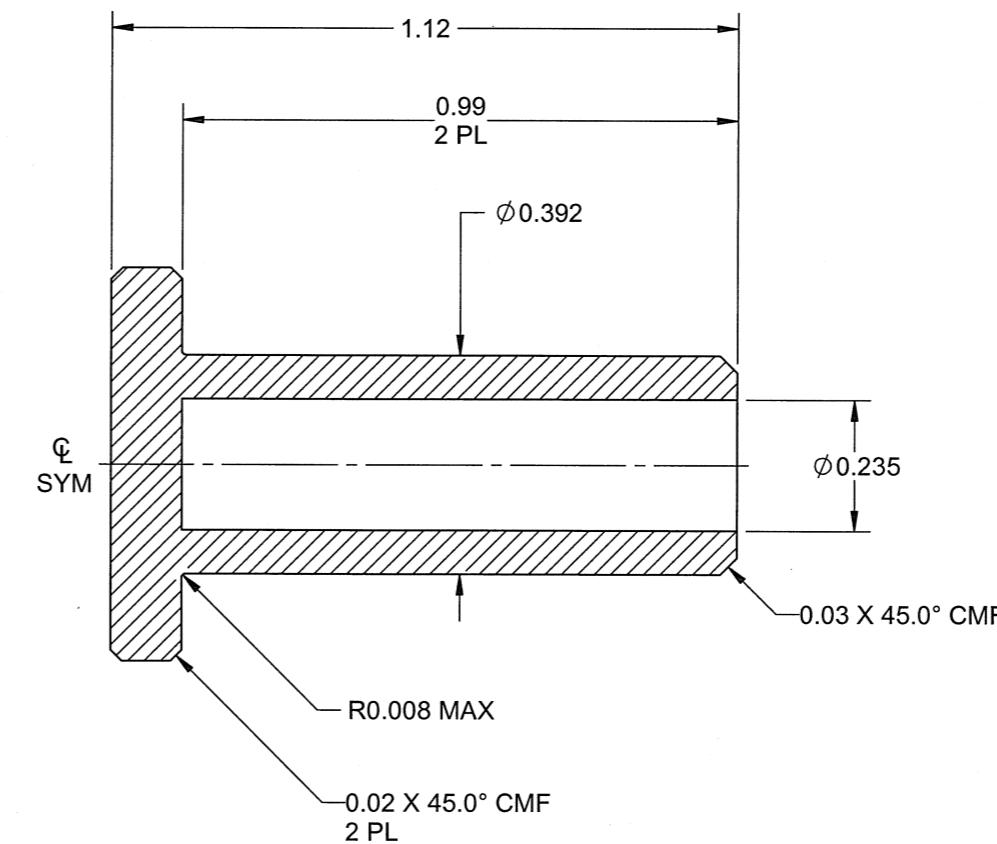
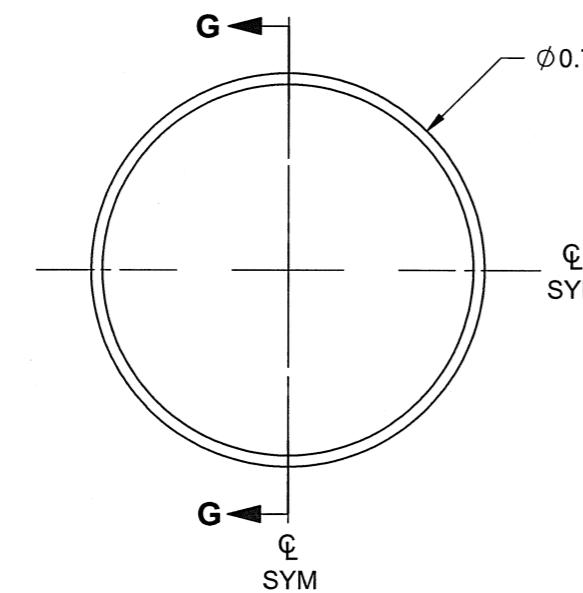
**SECTION F-F****RBE1120-31502W1-5 BUSHING #1****NOTES:**

- 1) MATERIAL: O1
- 2) HEAT TREAT: 48-52 RC
- 3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
- 4) TOLERANCES: X.X =  $+/- 0.1"$  /  $+/- 1^{\circ}$   
X.XX =  $+/- 0.01"$  /  $+/- 0.5^{\circ}$   
X.XXX =  $+/- 0.005"$  /  $+/- 0.1^{\circ}$   
X.XXXX =  $+/- 0.0005"$  /  $+/- 0.05^{\circ}$   
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES =  $+/- 0.005"$
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) REMOVE ALL SHARP EDGES AND BURRS
- 7) IDENTIFICATION: N/A

DESIGN DRAWN	KPT KPT	<b>DART AEROSPACE LTD</b>
CHECKED	MW	HAWKESBURY, ONTARIO, CANADA
MFG. APPR.	FK	REV. B
APPROVED		TOOL PART # RBE1120-31502W1
		SHEET 6 OF 8
		TITLE PRESS IN / PUSH OUT DEVICE
		SCALE NTS
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**RBE1120-31502W1-7 BUSHING #2**

**SECTION G-G**

A

**NOTES:**

- 1) MATERIAL: O1
- 2) HEAT TREAT: N/A
- 3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°  
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) REMOVE ALL SHARP EDGES AND BURRS
- 7) IDENTIFICATION: N/A

DESIGN DRAWN	KPT KPT	<b>DART AEROSPACE LTD</b>	
CHECKED	MW	HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.	FK		
APPROVED			
DATE 2019-09-09		TOOL PART #	RBE1120-31502W1
		REV. B	SHEET 7 OF 8
TITLE		PRESS IN / PUSH OUT DEVICE	
SCALE		NTS	

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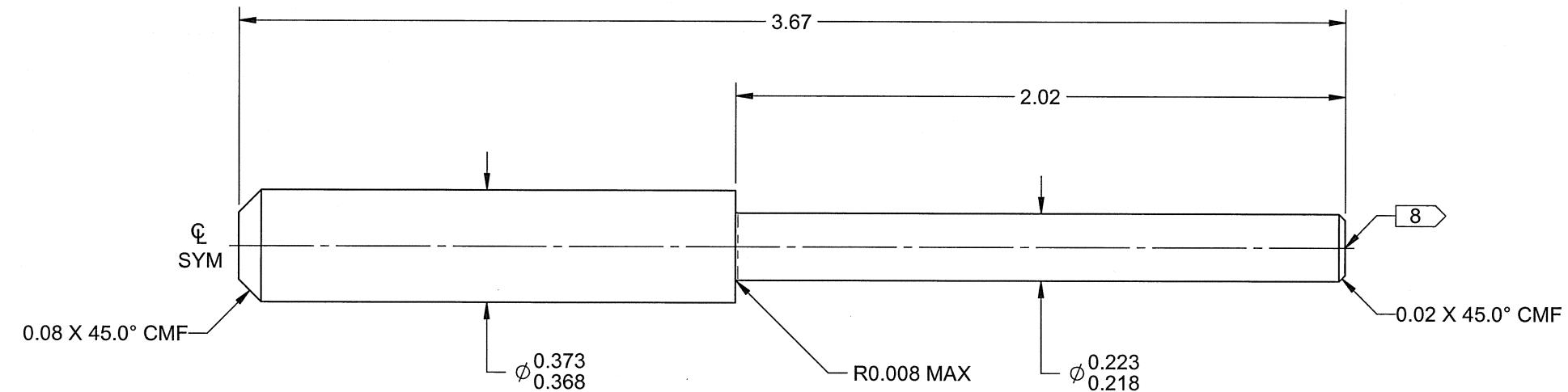
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B

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**RBE1120-31502W1-9 PIN**

## NOTES:

1) MATERIAL: O1  
2) HEAT TREAT: N/A  
3) FINISH: BLACK OXIDE PER MIL-C-13924 CLASS 1 THEN APPLY A THIN LAYER OF OIL / CPC PER MIL-PRF-16173 GRADE 3 CLASS 1 OR MIL-C-81309 TYPE III

OR MIL-C-23411A OR MIL-PRF-81309 AND WIPE OFF EXCESS  
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°  
X.XX = +/- 0.01" / +/- 0.5°  
X.XXX = +/- 0.005" / +/- 0.1°  
X.XXXX = +/- 0.0005" / +/- 0.05°

PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"  
5) UNITS: INCHES UNLESS OTHERWISE NOTED  
6) REMOVE ALL SHARP EDGES AND BURRS  
7) IDENTIFICATION: N/A  
8) CENTER DRILL IS ACCEPTABLE

DESIGN DRAWN	KPT KPT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	MW	REV. B	
MFG. APPR.	FK	SHEET 8 OF 8	
APPROVED			
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